

REMARKS

Per our discussion, please consider the amendments and remarks presented in this supplemental amendment. Although claims 13, 17, and 20 had been withdrawn in previously filed amendments, those claims reappeared in the amendment dated October 2, 2003. By this supplemental amendment, the Applicants cancel claims 13, 17, and 20 and add new claim 26.

The arguments are essentially the same as those submitted in the amendment dated October 2, 2003. For your convenience, the legal arguments are presented below.

I. Rejection of Claims 14-16, 18, 19, and 21-25 under 35 U.S.C. §102(b) over US Patent Number 5,362,589 ("Morimoto")

In order for a rejection to be proper under 35 U.S.C. § 102, a reference must disclose each and every element of the invention. See, e.g., In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990).

In one embodiment as described in claim 19, the present invention is a glass composition comprising from 0 to less than 1.6 weight percent Al₂O₃ and a ratio of CaO to MgO ranging from 2 to 5. Further, the glass composition of the present invention must have a log 2 viscosity in the range of about 2570°F to about 2590°F (1410°C to 1421°C) and a log 4 viscosity in the range of about 1850°F to about 1894°F (1010°C to 1034°C).

In another embodiment as described in claim 22, the present invention is a method for lowering the melting temperature, forming temperature, and/or liquidus temperature of a glass composition having CaO and MgO comprising the steps of: increasing the CaO by a selected weight percent; and decreasing the MgO by substantially the same weight percent.

In contrast to the glass composition of the present invention, the Morimoto reference teaches and discloses a glass composition containing from 1.6-3.0% of Al₂O₃. Morimoto teaches away from embodiments containing less than 1.6% Al₂O₃. At col. 3, lines 41-43 of Morimoto, it states

that if there is less than 1.6% Al₂O₃, glass is not always in good weatherability. In addition, the cited reference does not teach a ratio of CaO to MgO.

In contrast to the method for lowering the melting temperature, forming temperature, and/or liquidus temperature of a glass composition having CaO and MgO of the present invention, the Morimoto reference does not teach or suggest any of the steps used in the invention. Morimoto does not disclose increasing the CaO by a selected weight percent and decreasing the MgO by substantially the same weight percent.

In sum, the Morimoto reference does not teach or disclose the required weight percent of Al₂O₃, the ratio of CaO to MgO, and the required log 2 and log 4 viscosities of the glass composition of the present invention. Further, Morimoto does not teach or suggest the steps used to lower the melting temperature, forming temperature, and/or liquidus temperature of the present invention. As a result, the rejection of independent claims 19 and 22 as being anticipated by Morimoto is improper and should be withdrawn.

Because independent claims 19 and 22 should be allowable in light of the amendments and remarks above, dependent claims 14-16, 18, 21, 23-25 should also be allowable.

II. Rejection of claims 14-16, 18, 19, 22, 23 and 25 under 35 U.S.C. § 102(e) over US Patent Number 6,313,052 ("Nakashima")

The arguments made above in regard to the Morimoto reference are applicable here. The Nakashima reference does not teach or disclose the required weight percent of Al₂O₃, the ratio of CaO to MgO, and the required log 2 and log 4 viscosities of the composition according to the present invention. Further, Nakashima does not teach or suggest the steps used to lower the melting temperature, forming temperature, and/or liquidus temperature of the method for lowering the melting temperature, forming temperature, and/or liquidus temperature of the present invention. As a result, the rejection of independent claims 19, 22, and 26 as being anticipated

by Nakashima is improper and should be withdrawn. Because independent claims 19 and 22 should be allowable in light of the amendments and remarks above, dependent claims 14-16, 18, 21, 23-25 should also be allowable.

III. Rejection of Claims 14-16, 18, 19, and 21-25 under 35 U.S.C. § 102(b) over US Patent Number 5,998,316 ("Seto")

In sum, the Seto reference does not teach or disclose the required weight percent of Fe₂O₃, the ratio of CaO to MgO, and the required log 2 and log 4 viscosities. Further, Seto does not teach or suggest the steps used to lower the melting temperature, forming temperature, and/or liquidus temperature of the present invention. As a result, the rejection of independent claims 19 and 22 as being anticipated by Seto is improper and should be withdrawn. Because independent claims 19 and 22 should be allowable in light of the amendments and remarks above, dependent claims 14-16, 18, 21, 23-25 should also be allowable.

IV. Rejection of Claims 14-16, 18, 19, and 21-25 under Obvious-Type Double Patenting

In the Office Action, claims 14-16, 18, 19, and 21-25 were provisionally rejected under obvious-type double patenting as being unpatentable over claims 17-31 of Application No. 09/974,124. Because a terminal disclaimer mailed on March 13, 2003 was found to be improper, a new statutory disclaimer in compliance with 37 CFR 1.321 is submitted with this supplemental amendment to overcome the provisional rejection of claims 14-16, 18, 19, and 21-25 under obvious-type double patenting.

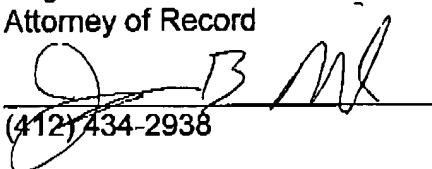
CONCLUSION

In light of the amendments and remarks presented in this correspondence, the rejections of claims 14-16, 18, 19, and 21-25 under 35 U.S.C. § 102(b) as being clearly anticipated by Morimoto; claims 14-16, 18, 19, 22, 22, 23, and 25 under 35 U.S.C. § 102(e) as being anticipated by

Nakashima; and claims 14-16, 18, 19, and 21-25 under 35 U.S.C. § 102(b) as being anticipated by Seto should be withdrawn. In light of the enclosed terminal disclaimer, the provisional rejection of claims 14-16, 18, 19, and 21-25 under obvious-type double patenting as being unpatentable over claims 17-31 of Application No. 09/974,124 should also be withdrawn. Claims 14-16, 18, 19, and 21-25 should be in condition for allowance. If any questions remain about this application, please call me at 412-434-2938. Thank you.

Respectfully submitted,

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